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WHAT IS CLAIMED IS:

1. A storage system comprising:

a plurality of storage sub-systems each of which includes a storage device having a recording medium for storing data, and a controller for controlling said storage device;

a first interface node coupled to a computer using the data stored in said plurality of storage sub-systems, said first interface node having a configuration table storing structural information of the storage system, and a switching controller, in response to frames sent from said computer, analyzing and converting said frames based on the structural information held in said configuration table;

a plurality of second interface nodes each of which is coupled to any one of said storage sub-systems; and

a switching means, coupled to said first interface node and to said plurality of second interface nodes, for performing frame transfer between said first interface node and said plurality of second interface nodes.

2. A storage system according to claim 1, wherein said first interface node comprises a packet generator for outputting said frame with adding node address information of said second interface node thereto, and wherein said switching means performs frame transfer between said first

interface node and said plurality of second interface nodes based on said node address information.

3. A storage system according to claim 1, wherein said frame has a frame header having identifiers for specifying the transfer destination and the transfer source and, and a frame payload having the transferred data, and wherein said switching controller converts the identifier for the transfer destination held in said frame header based on said structural information.

4. A storage system according to claim 3, wherein said frame has said frame payload containing a first logical address information recognized from said computer, and said switching controller converts said first logical address information to a said second logical address information managed within the storage sub-system which is the frame transfer destination based on said structural information stored in said configuration table

5. A storage system according to claim 1, further comprising a managing processor connected to said switching means, and wherein said managing processor receives structural information defining the configuration of the storage system inputted by an operator, and sets structural information in the configuration table of each node in response to input of the structural information.

6. A storage system according to claim 5, wherein said structural information contains information limiting access to said plurality of storage sub-systems from said computer.

7. A storage system according to claim 2, wherein said first interface node, in response to a write command frame sent from said computer instructing the writing of data, generates duplicates respectively of the write command frame and the following data frame, and transfers said frames to the switching means with adding different node addresses to each of the frames so that the write command frame and the following data frame will be sent to at least two storage sub-systems.

8. A storage system according to claim 7, wherein said first interface node, in response to a read command frame sent from said computer instructing the reading of data, generates duplicates respectively of the read command frame and the following data frame, and transfers said frames to the switching means with adding different node addresses to each of the frames so that the read command frame and the following data frame will be sent to at least two storage sub-systems..

9. A storage system according to claim 8, wherein said first interface node, in response to said read command frame, receives data frames transferred from at least two

of said storage sub-systems, and selects and transfers one of data frames from said at least two storage sub-systems to said computer.

10. A storage system of claim 7, wherein said first interface node, in response to a read command frame sent from said computer instructing the reading of data, transfers said read command frames to said switching means with adding node address information of said second interface node, which is coupled to a pre-determined storage sub-system from among at least two of said storage sub-systems, to said read command frame.

11. A switching means connected between a computer and a plurality of storage sub-systems including a storage device having a recording medium for storing data and a controller for controlling said storage device, said switching means comprising:

a first interface node coupled to said computer, and including a configuration table storing structural information for a disk storage system and a switching controller, in response to a frame transferred from said computer, analyzing said frame and converting said frame based on structural information held in said configuration table;

a plurality of second interface nodes each of which is coupled to any one of said storage sub-systems; and

a switching device, to which said first interface node and said plurality of second interface nodes are connected, for performing frame transfer between said first interface node and said plurality of second interface nodes.

12. A storage switch according to claim 11, wherein said first interface node has a packet generator outputting said frame with adding node address information of said second interface node, and wherein said switching device performs frame transfer between said first interface node and said plurality of second interface nodes based on said node address information.

13. A storage switch according to claim 11, wherein said frame has a frame header holding identifiers for specifying the transfer source and transfer destination, and a frame payload holding the actual data for transfer, and wherein said switching controller converts the identifier for the transfer destination held in said frame header based on said structural information.

14. A storage switch according to claim 13, wherein said frame contains, in said frame payload, a first logical address information recognized by said computer, and wherein said switching controller converts said first logical address information to a second logical address information managed within the storage sub-system which is

the destination of the frame, based on said structural information held in said configuration table.

15. A storage switch according to claim 11, further comprising a managing processor coupled to the switching device, and wherein said managing processor receives structural information defining the configuration of the storage system inputted by an operator, and sets structural information in the configuration table of each node in response to input of the structural information.

16. A storage switch according to claim 12, wherein said first interface node, in response to a write command frame sent from said computer instructing the writing of data, generates duplicates respectively of the write command frame and the following data frame, and transfers said frames to the switching device with adding different node addresses to each of the frames so that the write command frame and the following data frame will be sent to at least two storage sub-systems.

17. A storage switch according to claim 16, wherein said first interface node, in response to a read command frame sent from said computer instructing the reading of data, generates duplicates of said read command frame, and transfers said frames to the switching device with adding different node addresses to each of the frames so that the

read command frame will be sent to at least two storage sub-systems.

18. A storage switch according to claim 17, wherein said first interface node, in response to said read command frame, receives data frames transferred from at least two of said storage sub-systems, and selects and transfers one of said data frames received from said at least two storage sub-systems to said computer.

19. A storage switch according to claim 16, wherein said first interface node, in response to a read command frame sent from said computer instructing the reading of data, transfers said read command frames to said switching device with adding node address information of a second interface node which is coupled to a predetermined storage sub-system in said at least two storage sub-systems to said read command frame.

20. A storage system comprising:

plurality of storage sub-systems including a storage device having a recording medium for storing data and, a controller for controlling said storage device;

a first interface node coupled to a computer using the data stored in said plurality of storage sub-systems;

a plurality of second interface nodes each of which is coupled to any one of said storage sub-systems;



a switching means coupled to said first interface node and to said plurality of second interface nodes for performing frame transfer between said first interface node and said plurality of second interface nodes; and

a managing processor coupled to said switching means and having a configuration table for holding structural information, inputted by an operator, defining the configuration of the storage system; and

wherein said managing processor manages the configuration of the storage system based on said structural information.